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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/769,604

01/25/2001

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EMC-002PUS

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06/19/2006

EMC CORPORATION

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354 TURNPIKE STREET

SUITE 301A

CANTON, MA 02021-2714

EXAMINER

OSMAN, RAMY M

ART UNIT

PAPER NUMBER

2157

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Status of Claims

1. This communication is in response to RCE amendments filed on April 27, 2006, where added new claim 21. Claims 1-15,17-21 are pending.

Response to Arguments

2. Applicant's arguments filed 4/27/2006 with respect to claims 1-15,17-21 have been considered but are not persuasive.

3. Applicant submits that Examiner has not given claim terms their ordinary meaning. Applicant argues that one of ordinary skill in the art of backup and restore systems will not agree with Examiners interpretation, and that backup and restore is directed to a system as shown in figure 3.

In reply, Examiner maintains that "the art of backup and restore systems" encompass anything in the technological arts that may be used to provide backup and restoration operations of data items. 'Backup' is known in the art to mean making a copy of a data item. 'Restore' is known in the art to mean accessing the backup and copying the backup to a specified location. Applicants claim language is broad and fails to reflect the client/server architecture of figure 3.

4. Applicant further argues the Examiners interpretation of the term 'library', and that it is not consistent with applicants specification (specifically page 12).

In reply, Examiner maintains the interpretation because applicant has not contextualized the 'library' to reflect applicants invention. The claim language suggests that the library is its own independent entity, and that it is not tied to any catalog information as is mentioned in

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paragraph 1 on page 12 of applicants specification. Therefore, as it stands, the claims are broad and are interpreted in the manner mentioned in office action dated 12/29/2005. Limitations of the specification not mentioned in the claims are not read into the claims.

The word 'library' is a broad term and is broadly interpreted to mean anything that contains a collection of data objects. Therefore, a compact disc containing data, or a zip archive file can both be interpreted to be a library (i.e. something that contains a collection of data objects).

5. Applicant argues that Hanes is not a backup and storage system as understood in the art.

In reply, Applicant fails to detail in the claim the architecture and elements of the 'backup and storage system', as disclosed in figure 3 for example. 'Backup and storage system' is a broad limitation and is interpreted to mean anything that can be used to backup data and act as a storage for data.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-15,17-20 rejected under 35 U.S.C. 103(a) as being unpatentable by Hanes et al (US Patent No 6,466,952) in view of Rodriguez et al (US Patent No 6,427,149).**

8. In reference to claim 1, Hanes teaches a method of restoring backed up data, comprising:

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retrieving, by a data backup and storage system, a list of objects that are restorable by a client (column 4 lines 64-67 and column 6 lines 15-25);

displaying the list of restorable objects for browsing by a user (column 4 lines 64-67);

generating a list of restorable objects marked for restoration by the user, wherein each of the restorable objects is associated with a particular library (column 6 lines 8-25 & 49-67);

submitting the list of marked restorable objects for restoration by the client (column 2 lines 37-50 and column 5 lines 10-30);

executing a restoration of the submitted list of marked restorable objects via a remote procedure call such that multiple restore submissions can be made prior to restore execution (column 2 lines 37-50 and column 6 lines 5-20).

Hanes fails to explicitly teach the limitation of via a remote procedure call. However, Rodriguez teaches remote procedure calls wherein a client retrieves a list of archive objects from a server for multiple restore submissions of archive files (Abstract, column 3 lines 18-25, column 4 lines 24-40 & 55-65 and column 5 lines 10-31).

It would have been obvious for one of ordinary skill in the art to modify Hanes by executing a restoration of the submitted list of marked restorable objects via a remote procedure call as per the teachings of Rodriguez so as to allow remote access of archived or backup data so they can be retrieved or restored in order to remotely restore data over a network connection.

9. In reference to claim 2, Hanes teaches the method according to claim 1, further including executing multiple restore submissions concurrently (column 5 lines 1-15 and column 6 lines 20-35).

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10. In reference to claim 3, Hanes teaches the method according to claim 1, further including initiating a restore session for the client. (column 8 lines 20-33).

11. In reference to claim 4, Hanes teaches the method according to claim 3, further including creating a restore engine process for the retrieving, browsing, submitting and executing of restore objects (column 4 line 60 – column 5 line 30).

12. In reference to claim 5, Hanes in view of Rodriguez teaches the method according to claim 4, wherein the client communicates with the restore engine process via remote procedure calls (column 4 lines 23-40 & 55-65, Rodriguez teaches remote restoration over a network).

13. In reference to claim 6, Hanes in view of Rodriguez teaches the method according to claim 4, wherein the restore engine process is created by a dispatch daemon on a backup storage system server. (column 4 lines 23-41 and column 5 lines 10-30, Rodriguez teaches a restore process on an archive server).

14. In reference to claim 7, Hanes teaches the method according to claim 4, wherein the restore engine process is terminated upon completion of the restore execution (column 2 line 37 – column 3 line 20, it is a well known feature in the art to terminate a process after its completion).

15. In reference to claim 8, Hanes in view of Rodriguez teaches the method according to claim 4, further comprising creating a restore process for data to be restored over a network to a client (Hanes; column 19 lines 5-30, column 20 lines 50-67 and column 24 lines 45-67).

Hanes fails to explicitly teach wherein the restore engine process runs on a backup data storage server and further including creating a work item restore process on the backup data server, a server restore process for generating a stream of data to be restored, and a client restore

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process for receiving the data stream . However, Rodriguez teaches a restore process on an archive server, a data stream over a network for data retrieval and a client process for receiving the data (Abstract, column 4 lines 23-41 and column 5 lines 10-30).

It would have been obvious for one of ordinary skill in the art to modify Hanes by making the restore engine process runs on a backup data storage server and further including creating a work item restore process on the backup data server, a server restore process for generating a stream of data to be restored, and a client restore process for receiving the data stream as per the teachings of Rodriguez so that the restoration can occur remotely over a network.

16. In reference to claim 9, Hanes teaches the method according to claim 4, further including detecting and identifying libraries that support associated catalogs of backed up data for processing of backed up data by the restore engine process. (column 4 lines 23-67, column 6 lines 8-25 & 49-67)

17. In reference to claim 10, Hanes teaches the method according to claim 9, further including adding a new library supporting new methods of backing up data (column 4 lines 23-67, column 6 lines 8-25 & 49-67 and column 7 lines 50-67).

18. In reference to claim 11, Hanes teaches the method according to claim 9, further including determining object types for backed up data supported by the libraries (column 4 lines 23-67, column 6 lines 8-25 & 49-67 and column 7 lines 5-25).

19. In reference to claims 12,13 and 15, Hanes teaches a method of restoring backed up data and a corresponding system, comprising:

initiating a restore session for a first client through a graphical user interface associated with the client (column 4 lines 64-67 and column 8 lines 14-40);

establishing a connection between the graphical user interface and the restore engine process (column 4 lines 64-67 and column 8 lines 14-40);

displaying a list of restorable objects for browsing by a user associated with the client via the graphical user interface under the control of the restore engine process (column 4 line 64 – column 5 line 15);

identifying restorable objects marked for restoration by the user under control of the restore engine process (column 2 lines 37-50 and column 5 lines 10-30);

storing a list of marked restorable objects submitted by the client to the restore engine process (column 2 lines 37-50 and column 5 lines 10-30); and

executing the restoration of the marked objects under control of the restore engine process independently of the browsing, marking and submitting of the restorable object such that multiple restore submissions can be made prior to restore execution (column 2 lines 37-50 and column 6 lines 5-20).

Hanes fails to explicitly teach the limitation of via a remote procedure call. However, Rodriguez teaches remote procedure calls wherein a client retrieves a list of archive objects from a server for multiple restore submissions of archive files (Abstract, column 3 lines 18-25, column 4 lines 24-40 & 55-65 and column 5 lines 10-31).

It would have been obvious for one of ordinary skill in the art to modify Hanes by executing a restoration of the submitted list of marked restorable objects via a remote procedure

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call as per the teachings of Rodriguez so as to allow remote access of archived or backup data so they can be retrieved or restored in order to remotely restore data over a network connection.

20. In reference to claim 14, Hanes teaches the method according to claim 12, further including supporting a new backup data method by adding a library corresponding to the new backup data method. (column 6 lines 8-25 & 49-67 and column 7 lines 50-67)

21. In reference to claims 17, Hanes teaches the system according to claim 15, wherein the restore engine process processes library's upon restore initialization such that libraries can be added to the system for supporting new backup methods. (column 6 lines 8-25 & 49-67 and column 7 lines 50-67)

22. In reference to claims 18, Hanes teaches the system according to claim 17, further including a dispatch daemon for initiating the restore session (column 4 lines 23-41 and column 5 lines 10-30, Rodriguez teaches a restore process on an archive server).

23. In reference to claims 19, Hanes teaches the system according to claim 15, further including further restore engine processes corresponding to further restore sessions initiated by additional clients (Rodriguez inherently teaches multiple clients restoring archive data, column 4 lines 25-55).

24. In reference to claims 20, Hanes teaches the system according to claim 19, further including additional restore triangles for executing multiple work item restores concurrently (Summary and column 5 lines 10-40).

25. In reference to claims 21, Hanes teaches the system according to claim 15, wherein each of the restorable objects is associated with a particular library (column 6 lines 8-25 & 49-67).


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramy M. Osman whose telephone number is (571) 272-4008. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RMO
June 12, 2006


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